

State of California  
AIR RESOURCES BOARD

EXECUTIVE ORDER A-6-850-1  
Relating to Certification of New Motor Vehicles

GENERAL MOTORS CORPORATION

Pursuant to the authority vested in the Air Resources Board by the Health and Safety Code, Division 26, Part 5, Chapter 2; and

Pursuant to the authority vested in the undersigned by Health and Safety Code Sections 39515 and 39516 and Executive Order G-45-9;

IT IS ORDERED AND RESOLVED: That 1999 model-year General Motors Corporation new pure electric motor vehicles are certified as described below for light-duty trucks:

Emission Standard Category: Zero-Emission Vehicle (ZEV)

Fuel Type: Battery-Stored Electricity

Engine Family: XGMXT00.0200

Battery Type: Nickel Metal Hydride

Vehicle Model: S10 Electric Pickup (CE 10603)

BE IT FURTHER RESOLVED: That because the listed vehicle models are powered by battery-stored electricity, and the only on-board system consuming any fuel other than electricity is a fuel-fired heating system that is designed and equipped so that it cannot be activated at temperatures above 40 degrees Fahrenheit and has been demonstrated to have zero evaporative emissions under any and all possible operational modes and conditions, the vehicle models meet the certification requirements for ZEVs set forth in Title 13, California Code of Regulations, Section 1960.1(g)(1) Note (2.1)a; the listed vehicle models also meet the definition of "low-emission motor vehicle" set forth in Health and Safety Code Sections 39037.05 and 43800.

BE IT FURTHER RESOLVED: That no modification may be made to the on-board heating system that would make it operable at temperatures above 40 degrees Fahrenheit, or that would result in evaporative emissions under any possible operational mode or condition.

BE IT FURTHER RESOLVED: That the listed vehicle models have demonstrated, based on the specific energy of the battery, to qualify for and shall be granted 2.03 ZEV placement credits for purposes of paragraph I.D.2. of the Memorandum of Agreement between the manufacturer and the Air Resources Board.

BE IT FURTHER RESOLVED: That to the extent that the manufacturer exceeds its obligation to place new ZEVs with advanced technology batteries into service in California urban areas pursuant to said Memorandum of Agreement, the listed vehicle models have demonstrated, based on the vehicle range or on the specific energy of the battery, to qualify for and shall be granted three ZEV credits for purposes of Title 13, California Code of Regulations, Section 1960.1(g)(2), note (9)a.

BE IT FURTHER RESOLVED: That the listed vehicle models shall comply with the "California Motor Vehicle Emission Control and Smog Index Label Specifications" (Title 13, California Code of Regulations, Section 1965) for the aforementioned model year.

BE IT FURTHER RESOLVED: That the listed vehicle models shall be clearly labeled as "low-emission motor vehicles" pursuant to the requirements of Health and Safety Code Section 43802(a).


BE IT FURTHER RESOLVED: That because the vehicles certified by this Executive Order have no parts that affect emissions for which there is an applicable emission requirement, the manufacturer is not required to provide an emission control system warranty pursuant to Health and Safety Code Section 43205 or Title 13, California Code of Regulations, Sections 2035 et seq.

Quarterly production reports shall be submitted to the Executive Officer no later than 45 days after the end of each quarter.

Vehicles certified under this Executive Order must conform to all applicable California emission regulations.

The Bureau of Automotive Repair will be notified by copy of this order.

Executed at El Monte, California this 14<sup>th</sup> day of December 1999.

  
for R. B. Summerfield, Chief  
Mobile Source Operations Division

(FOR CARS USE ONLY)

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**1999 MODEL YEAR AIR RESOURCES BOARD SUPPLEMENTAL DATA SHEET  
ZEV-PASSENGER CARS, LIGHT-DUTY TRUCKS AND MEDIUM-DUTY VEHICLES**

**Energy Storage System 2 (Nickel Metal Hydride)**

MFR: GENERAL MOTORS CORP. ENGINE FAMILY: XGMXT00.0200

VEH CLASS(ES): PC ( ) LDT1 ( ) LDT2 (X) MDV1 ( ) MDV2 ( ) MDV3 ( ) MDV4 ( ) MDV5 ( )

No. of ZEV Placement Credits per vehicle: ( 2.03 )\*\*

Fuel Type: Electro Chemical Battery: (X) Fuel Cell ( ) Capacitor ( ) Other (specify) ( )

Battery Type(s): Lead Acid ( ) Nickel Cadmium ( ) SBLA ( ) Sodium Sulfur ( )

Zinc Air ( ) Zinc Bromine ( ) Lithium Polymer ( ) Other (specify): (X) Nickel Metal Hydride (NiMH)

Total Battery Weight: ( 490.5 kg ) Battery Voltage: ( 13.54 V )

No. of batteries or modules per vehicle: ( 26 ) Total Battery Voltage: ( 352 )

Charger(s): on-board ( ) off-board (X) conductive ( ) inductive (X)

Drive Motor(s): AC Induction (X) DC Brush ( ) DC Brushless ( )

Switched Reluctance ( ) Other (specify): ( )

No. of Drive Motors ( 1 ) Rated motor power 114 hp @ 4500 rpm

DRIVE: FWD (X) RWD ( ) 4WD-FT ( ) 4WD-PT ( )

Regenerative Braking: No ( ) Yes (X) FW (X) RW ( ) AW ( )

Driver controlled Regen Braking: Yes ( ) No (X) Coast Regen Braking: Yes (X) No ( )

Air Conditioning: Yes (X) No ( )

Fuel Fired Heater: Fuel Type: Gas ( ) Diesel (X) CNG ( ) LNG ( )

LPG ( ) Other (specify): ( ) Rated Heat Power: 5 KW

Vehicle Models	Trans. type	GVWR	Curb Weight	ETW Test Weight	DPA RLHP	Roadload Coefficients (w A/C)		
	M5, A4					F <sub>0</sub>	F <sub>1</sub>	F <sub>2</sub>
S10 Electric CE10803	A1	5150	4222	4500	12.79*	33.44	0.0000	0.02884

\* Without 10% A/C factor.

\*\* 2.03 ZEV placement credits for MOA purposes. If manufacturer exceeds its obligations to place new ZEV's with advanced technology batteries into service, pursuant to the MOA, manufacturer would qualify for three ZEV credits, per Title 13, COR Section 1960.1(g)(2), Note (9) a (see E.O. for details).

CARLINE NAME

S10 Electric

CARLINE CODE

03083

ISSUED: ML-XP184B

REVISED:

17-XGMXT00.0200-3  
(1999)

17-0200